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Reviewer: Durreshwar Anjum

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330

335

Gln Ser Leu Gln Ser Trp Val Glu Pro Trp Phe Lys Pro Leu Ala Tyr 345 350 Ala Phe Ile Leu Thr Arg Gln Glu Gly Tyr Pro Cys Val Phe Tyr Gly 355 360 365 Asp Tyr Tyr Gly Ile Pro Lys Tyr Asn Ile Pro Ala Leu Lys Ser Lys 370 375 380 Leu Asp Pro Leu Leu Ile Ala Arg Asp Tyr Ala Tyr Gly Thr Gln 385 390 395 400 His Asp Tyr Ile Asp Ser Ala Asp Ile Ile Gly Trp Thr Arg Glu Gly 405 410 415 Val Ala Glu Lys Ala Asn Ser Gly Leu Ala Ala Leu Ile Thr Asp Gly 420 425 430 Pro Gly Gly Ser Lys Trp Met Tyr Val Gly Lys Gln His Ala Gly Lys 435 440 445 Thr Phe Tyr Asp Leu Thr Gly Asn Arg Ser Asp Thr Val Thr Ile Asn 455 460 450 Ala Asp Gly Trp Gly Glu Phe Lys Val Asn Gly Gly Ser Val Ser Ile 465 470 475 480 Trp Val Pro Lys <210> 5 <211> 485 <212> PRT <213> Bacillus sp <400> 5 Ala Asn Thr Ala Pro Val Asn Gly Thr Met Met Gln Tyr Phe Glu Trp 1 5 10 15 Asp Leu Pro Asn Asp Gly Thr Leu Trp Thr Lys Val Lys Asn Glu Ala

Ser	Ser	Leu 35	Ser	Ala	Leu	Gly	Ile 40	Thr	Ala	Leu	Trp	Leu 45	Pro	Pro	Ala
Tyr	Lys 50	Gly	Thr	Ser	Gln	Ala 55	Asp	Val	Gly	Tyr	Gly 60	Val	Tyr	Asp	Leu
Tyr 65	Asp	Leu	Gly	Glu	Phe 70	Asn	Gln	Lys	Gly	Thr 75	Ile	Arg	Thr	Lys	Tyr 80
Gly	Thr	Lys	Thr	Gln 85	Tyr	Leu	Gln	Ala	Ile 90	Gln	Ala	Ala	Lys	Ser 95	Ala
Gly	Met	Gln	Val 100	Tyr	Ala	Asp	Val	Val 105	Phe	Asn	His	Lys	Ala 110	Gly	Ala
Asp	Ser	Thr 115	Glu	Trp	Val	Asp	Ala 120	Val	Glu	Val	Asn	Pro 125	Ser	Asn	Arg
Asn	Gln 130	Glu	Thr	Ser	Gly	Thr 135	Tyr	Gln	Ile	Gln	Ala 140	Trp	Thr	Lys	Phe
Asp 145	Phe	Pro	Gly	Arg	Gly 150	Asn	Thr	Tyr	Ser	Ser 155	Phe	Lys	Trp	Arg	Trp 160
Tyr	His	Phe	Asp	Gly 165	Thr	Asp	Trp	Asp	Glu 170	Ser	Arg	Lys	Leu	Asn 175	Arg
Ile	Tyr	Lys	Phe 180	Arg	Gly	Thr	Gly	Lys 185	Ala	Trp	Asp	Trp	Glu 190	Val	Asp
Thr	Glu	Asn 195	Gly	Asn	Tyr	Asp	Tyr 200	Leu	Met	Phe	Ala	Asp 205	Leu	Asp	Met
Asp	His 210	Pro	Glu	Val	Val	Ala 215	Glu	Leu	Lys	Asn	Trp 220	Gly	Lys	Trp	Tyr
Val 225	Asn	Thr	Thr	Asn	Val 230	Asp	Gly	Phe	Arg	Leu 235	Asp	Ala	Val	Lys	His 240
Ile	Lys	Tyr	Ser	Phe	Phe	Pro	Asp	Trp	Leu	Ser	Tyr	Val	Arg	Asn	Gln

Thr Gly Lys Asn Leu Phe Ala Val Gly Glu Phe Trp Gly Tyr Asp Val

260 265 270

Asn Lys Leu His Asn Tyr Ile Thr Lys Thr Asn Gly Ala Met Ser Leu 275 280 285

Phe Asp Ala Pro Leu His Asn Asn Phe Tyr Ile Ala Ser Lys Ser Ser 290 295 300

Gly Tyr Phe Asp Met Arg Tyr Leu Leu Asn Asn Thr Leu Met Lys Asp 305 310 315

Gln Pro Ala Leu Ala Val Thr Leu Val Asp Asn His Asp Thr Gln Pro 325 330 335

Gly Gln Ser Leu Gln Ser Trp Val Glu Pro Trp Phe Lys Pro Leu Ala 340 345 350

Tyr Ala Phe Ile Leu Thr Arg Gln Glu Gly Tyr Pro Cys Val Phe Tyr 355 360 365

Gly Asp Tyr Tyr Gly Ile Pro Lys Tyr Asn Ile Pro Gly Leu Lys Ser 370 380

Lys Ile Asp Pro Leu Leu Ile Ala Arg Arg Asp Tyr Ala Tyr Gly Thr 385 390 395 400

Gln Arg Asp Tyr Ile Asp His Gln Asp Ile Ile Gly Trp Thr Arg Glu
405 410 415

Gly Ile Asp Ala Lys Pro Asn Ser Gly Leu Ala Ala Leu Ile Thr Asp 420 425 430

Gly Pro Gly Gly Ser Lys Trp Met Tyr Val Gly Lys Arg His Ala Gly 435 440 445

Lys Val Phe Tyr Asp Leu Thr Gly Asn Arg Ser Asp Thr Val Thr Ile 450 455 460

Asn Ala Asp Gly Trp Gly Glu Phe Lys Val Asn Gly Gly Ser Val Ser 465 470 475 480

Ile Trp Val Ala Lys

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Leu Pro Asp Asp Gly Thr Leu Trp Thr Lys Val Ala Asn Asn Ala Gln
     20 25
Ser Leu Ala Asn Leu Gly Ile Thr Ala Leu Trp Leu Pro Pro Ala Tyr
  35 40 45
Lys Gly Thr Ser Ser Ser Asp Val Gly Tyr Gly Val Tyr Asp Leu Tyr
     55 60
  50
Asp Leu Gly Glu Phe Asn Gln Lys Gly Thr Val Arg Thr Lys Tyr Gly
         70
                         75
65
Thr Lys Thr Gln Tyr Ile Gln Ala Ile Gln Ala Ala His Thr Ala Gly
         Met Gln Val Tyr Ala Asp Val Val Phe Asn His Lys Ala Gly Ala Asp
      100 105 110
Gly Thr Glu Leu Val Asp Ala Val Glu Val Asn Pro Ser Asp Arg Asn
   115 120 125
Gln Glu Ile Ser Gly Thr Tyr Gln Ile Gln Ala Trp Thr Lys Phe Asp
  130 135 140
Phe Pro Gly Arg Gly Asn Thr Tyr Ser Ser Phe Lys Trp Arg Trp Tyr
                         155
           150
145
                                  160
His Phe Asp Gly Thr Asp Trp Asp Glu Ser Arg Lys Leu Asn Arg Ile
      165 170 175
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Tyr Lys Phe Arg Gly Thr Gly Lys Ala Trp Asp Trp Glu Val Asp Thr 180 185 190

Glu	Asn	Gly 195	Asn	Tyr	Asp	Tyr	Leu 200	Met	Tyr	Ala	Asp	Leu 205	Asp	Met	Asp
His	Pro 210	Glu	Val	Val	Ser	Glu 215	Leu	Lys	Asn	Trp	Gly 220	Lys	Trp	Tyr	Val
Ile 225	Thr	Thr	Asn	Ile	Asp 230	Gly	Phe	Arg	Leu	Asp 235	Ala	Val	Lys	His	Ile 240
Lys	Tyr	Ser	Phe	Phe 245	Pro	Asp	Trp	Leu	Ser 250	Tyr	Leu	Arg	Thr	Gln 255	Thr
	_		Leu 260					265				_	270		
		275	Asn				280					285			
_	290		Leu			295		_			300	_			_
305			Met		310					315					320
			Gln	325					330					335	_
			340 Leu		-			345	-		-		350		-
		355	Gly				360	_	-		_	365		-	-
	370		Leu			375	_				380		_		_
385			Ile		390					395		_			400
	-	-		405			•		410	<u> </u>	•		,	415	-

Val Ala Glu Lys Ala Asn Ser Gly Leu Ala Ala Leu Ile Thr Asp Gly

420 425 430

Pro Gly Gly Ser Lys Trp Met Tyr Val Gly Lys Gln His Ala Gly Lys
435 440 445

Thr Phe Tyr Asp Leu Thr Gly Asn Arg Ser Asp Thr Val Thr Ile Asn 450 455 460

Ala Asp Gly Trp Gly Glu Phe Lys Val Asn Gly Gly Ser Val Ser Ile 465 470 475 480

Trp Val Pro Lys

<210> 7

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<212> PRT

<213> Bacillus sp.:

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Met Ser Leu Phe Lys Lys Ile Phe Pro Trp Ile Leu Ser Leu Leu Leu 1 5 10 15

Leu Phe Leu Phe Ile Ala Pro Phe Ser Ile Gln Thr Glu Lys Val Arg
20 25 30

Ala Gly Ser Val Pro Val Asn Gly Thr Met Met Gln Tyr Phe Glu Trp  $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45 \hspace{1.5cm}$ 

Tyr Leu Pro Asp Asp Gly Thr Leu Trp Thr Lys Val Ala Asn Asn Ala 50 55 60

Gln Ser Leu Ala Asn Leu Gly Ile Thr Ala Leu Trp Leu Pro Pro Ala 65 70 75 80

Tyr Lys Gly Thr Ser Ser Ser Asp Val Gly Tyr Gly Val Tyr Asp Leu 85 90 95

Tyr Asp Leu Gly Glu Phe Asn Gln Lys Gly Thr Val Arg Thr Lys Tyr
100 105 110

Gly Thr Lys Thr Gln Tyr Ile Gln Ala Ile Gln Ala Ala His Thr Ala 115 120 125

Gly Met Gln Val Tyr Ala Asp Val Val Phe Asn His Lys Ala Gly Ala 130 \$130\$

Asn Gln Glu Ile Ser Gly Thr Tyr Gln Ile Gln Ala Trp Thr Lys Phe \$165\$ \$170\$ \$175\$

Asp Phe Pro Gly Arg Gly Asn Thr Tyr Ser Ser Phe Lys Trp Arg Trp 180 185 185

Tyr His Phe Asp Gly Thr Asp Trp Asp Glu Ser Arg Lys Leu Asn Arg 195 200 205

Ile Tyr Lys Phe Arg Gly Thr Gly Lys Ala Trp Asp Trp Glu Val Asp 210  $\phantom{0}$  215  $\phantom{0}$  220

Thr Glu Asn Gly Asn Tyr As